

1. A non-naturally occurring method for preventing or reducing hypoxia-acidosis induced injury to a cell, the method comprising the step of: reducing BNIP3 expression or activity in the cell.

5 2. The method of claim 1, wherein the step of reducing BNIP3 expression or activity in the cell comprises decreasing the amount of BNIP3 mRNA in the cell.

3. The method of claim 1, wherein the step of reducing BNIP3 expression or activity in the cell comprises decreasing the amount of BNIP3 protein in the cell.

10

4. The method of claim 1, wherein the step of reducing BNIP3 expression or activity in the cell comprises introducing an antisense oligonucleotide into the cell.

5. The method of claim 1, wherein the step of reducing BNIP3 expression or activity in the cell comprises expressing a mutant BNIP3 protein in the cell.

15

6. The method of claim 1, wherein the step of reducing BNIP3 expression or activity in the cell comprises preventing BNIP3 protein dimerization in the cell.

20 7. The method of claim 1, wherein the step of reducing BNIP3 expression or activity in the cell comprises preventing translocation of BNIP3 protein to a mitochondrion in the cell.

8. The method of claim 1, wherein the step of reducing BNIP3 expression or activity in the cell comprises preventing or reversing acidosis in the cell.

25

9. The method of claim 1, wherein the cell is a myocyte.

10. The method of claim 9, wherein the cell is a cardiomyocyte.